

CLAIMS

What is claimed as being new and desired to be protected by LETTERS PATENT of the United States is as follows:

1. A waste water valve system for facilitating the opening and closing of a gate valve in a safe, convenient and efficient manner comprising, in combination:

a vehicle of the type which has water handling capabilities including recreational vehicles and trailers and mobile homes, the vehicle having a front end and a rear end and a direction of movement there between, the vehicle having rear wheels rotatable about an axis of rotation spaced forwardly of the rear end and with a base there between;

a drain pipe with an input end coupled to the vehicle and an output end and a passageway there through adapted to dispense waste water from the vehicle, the drain pipe being located between the rear wheels and the rear end and constructed of a cylindrical configuration with a central axis parallel with the axis of rotation, a 180 degree circumferential slot in the drain pipe facing the rear wheels at a short first distance from the output end of the drain pipe, and a gate collar around the drain pipe over the slot and a lever collar around the drain pipe a second distance from the output end, the second distance being greater than the first distance;

a gate valve coupled to the gate collar including a gate reciprocable between a closed position extending across the passageway to preclude the flow of waste water there through and an open position out of the passageway to allow the flow of waste water there through, the gate having a leading edge in a crescent-shaped configuration and a trailing edge with an aperture, the gate valve also including a drive rod with a clevis coupled to the trailing edge of the gate and free end formed with a C-shaped hook and with a turnbuckle there between for adjustment purposes, the gate valve also including a gate shield having a first end coupled to the gate collar and a second end with an aperture for the sliding passage of the drive rod, the gate valve also including a pair of elastomeric rings located within the drain pipe adjacent to the slot with the gate movable between the rings for seal-forming purposes; and

a lever assembly including an extension member having a first end integrally formed with the lever collar and a second end with an aperture and a nut with an associated bolt through the aperture, the lever assembly also having a lever with a loop at one end constituting a pivot point which is rotatably supported on the bolt between the apertures of the extension members and a handle at the other end with an intermediate extent there between, the intermediate extent being slidably received in the C-shaped hook of the drive rod whereby grasping the handle

and moving it toward the drain pipe will close the gate valve while moving it away from the drain pipe will open the gate valve and with the positioning of the pivot point and the handle at opposite ends of the lever with the gate valve constituting a load there between creates a second class lever for maximum efficiency and convenience and safety.

2. A waste water valve system for a vehicle of the type which has water handling capabilities comprising:

a drain pipe adapted to dispense waste water from a vehicle, the drain pipe having a circumferential slot and a gate collar around the drain pipe over the slot;

a gate valve coupled to the gate collar including a gate reciprocable between a closed position to preclude the flow of waste water and an open position to allow the flow of waste water, the gate valve also including a drive rod coupled to the gate with a free end formed with a C-shaped hook; and

a lever assembly including a lever having a first end, the lever also having a second end formed into a loop and with a pivot bolt rotatably supporting the loop, the lever also having an intermediate extent slidably received in the c-shaped hook whereby moving the handle toward the drain pipe will close the gate valve while moving the handle away from the drain pipe will open the gate valve.

3. The system as set forth in claim 2 and further including:

a frame portion on the vehicle laterally spaced from the drain pipe and parallel there with.

4. The system as set forth in claim 2 and further including:

a lever bracket having an interior end secured to the frame portion and an exterior end supporting the pivot bolt.

5. The system as set forth in claim 4 wherein the exterior end of the lever bracket includes two parallel sections with the loop of the lever there between and a securement bolt with an associated nut securing together the two parallel sections.

6. The system as set forth in claim 5 wherein the interior end of the lever bracket includes two attachment bolts removably attaching the lever bracket to the frame portion with the axes of the attachment bolts perpendicular to the axis of the pivot bolt.

7. The system as set forth in claim 2 and further including:

a gate shield slidably receiving the gate, the gate shield being secured between the gate collar and the frame portion.

8. The system as set forth in claim 2 wherein the first end of the lever has male threads and further including a hollow extender tube with female threads at one end whereby the extender tube may be positioned over the majority of the extent of the

lever and threadedly coupled thereto when the gate valve is closed and whereby the extender tube may be positioned over the minority of the extent of the lever and threadedly coupled thereto when the gate valve is opened.

9. The system as set forth in claim 2 and further including:

a lever collar having an interior end attached to the drain pipe and an exterior end supporting the pivot bolt.

10. A waste water valve system for facilitating the opening and closing of a gate valve in a safe, convenient and efficient manner comprising, in combination:

a drain pipe adapted to dispense waste water from a vehicle, the drain pipe having a circumferential slot and a gate collar around the drain pipe over the slot;

a gate valve coupled to the gate collar including a gate reciprocable between a closed position to preclude the flow of waste water and an open position to allow the flow of waste water, the gate valve also including a drive rod coupled to the gate with a free end formed with a C-shaped hook;

a lever assembly including a lever having a first end, the lever also having a second end formed into a loop and with a pivot bolt rotatably supporting the loop, the lever also having an intermediate extent slidably received in the c-shaped hook whereby moving the handle toward the drain pipe will close the

gate valve while moving the handle away from the drain pipe will open the gate valve;

a frame portion on the vehicle laterally spaced from the drain pipe and parallel there with;

a lever bracket having an interior end secured to the frame portion and an exterior end supporting the pivot bolt, the exterior end of the lever bracket including two parallel sections with the loop of the lever there between and a securement bolt with an associated nut securing together the two parallel sections and wherein the interior end of the lever bracket includes two attachment bolts removably attaching the lever bracket to the frame portion with the axes of the attachment bolts perpendicular to the axis of the pivot bolt; and

a gate shield slidably receiving the gate, the gate shield being secured between the gate collar and the frame portion, the first end of the lever having male threads and further including a hollow extender tube with female threads at one end whereby the extender tube may be positioned over the majority of the extent of the lever and threadedly coupled thereto when the gate valve is closed and whereby the extender tube may be positioned over the minority of the extent of the lever and threadedly coupled thereto when the gate valve is opened.